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10/593,051

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Evyatar Meller

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EXAMINER

BUI, HANH THI MINH

ART UNIT

PAPER NUMBER

2192

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,051	Applicant(s) MELLER ET AL.	
	Examiner HANH T. BUI	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/1/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial office action based on the application filed on September 15th, 2006, which claims 1 to 11 are presented for examination.

Status of Claims

2. Claims 1-11 are pending, of which claims 1, 8-11 is in independent form.

Oath/Declaration

3. The Office acknowledges receipt of a properly signed oath/declaration filed on September 8th, 2008.

Priority

4. Priority date that has been considered for this application is March 15th, 2004.

Information Disclosure Statement

5. The information disclosure statements filed on May 1st, 2007 comply with the provisions of 37 CFR 1.97, 1.98. They have been placed in the application file and the information referred to therein has been considered as to the merits.

Claim objection

6. Claim 7 is objected because claim 7 recites "*The method of Claim 5, wherein said enlarging includes ...*" (emphasis added), however, claims 1 and 5

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do not recite any “enlarging” limitation. For compact prosecution, examiner treats as --The method of claim 6--.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically directed towards computer programs representing computer listings per se. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things”. They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims

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that define descriptive material per se from claims that define statutory inventions. (See MPEP 2106.01(I)).

b. Claim 11 recites the limitation “*A computer program as claimed in Claim 10 embodied on a computer readable medium*”, even though the Specification page 17, 2nd paragraph disclose that “The invention further contemplates a machine-readable memory tangibly embodying a program ...” (emphasis added), thus, a broad interpretation of a “*computer-readable medium*” as claim can be any media that include transitory propagating signals (non-statutory). The examiner respectfully suggests that the claim be amended as “*A machine-readable memory medium*” to limit the claim to statutory memory/medium under 35 USC 101; (emphasis added).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (Patent No. 6,832,373 – hereinafter, O'Neill – IDS submitted 5/1/2007) in view of Chen et al. (Pub. No. 2005/0102660 - hereinafter, Chen).

Regarding claim 1:

O'Neill discloses *a method for in-place updating an old version of a file stored on a storage device to form a new version, the old version including blocks, the method comprising:*

- *determining (i) a [form] of said old version, [indicating at which end of the old version free space is located], and (ii) whether an update package is a corresponding update package for [said form]; and if so*

(FIG. 1A and associated text, such as, “the *updating operations* can correct errors or problems with existing code resident in the device, add new features or functionality, *change or modify resident applications*, or perform other desired update operations” (emphasis added - See Col. 8: 12-15).

FIG. 9 and associated text, such as, “The non-volatile storage area may be further subdivided into a plurality of blocks or banks 1010 which represent discretely addressable locations used to store information or data. The operating system, firmware code, or other information 1120 to be desirably updated is further stored in the non-volatile memory or storage area 1002 and is distributed across at least some of the plurality of banks 1010.” (emphasis added – See Col. 31: 41-51).

“banks within a particular electronic device may be variably sized and may refer to the contents of one or more logical or physical *blocks* as defined by a particular architecture for an electronic device” (emphasis added – See Col. 31: 14-26).

FIG. 10 and associated text, such as, “update process 1100 typically begins after the *appropriate available update package 110 is identified* and transferred to the electronic device” (emphasis added – See Col. 33: 37-39).

“*determine* if the received update package 110 is *appropriate* for application to the *existing code version*” (emphasis added – See Col. 33: 53-56)).

- *updating blocks in said old version according to said corresponding update package, giving rise to a new version having an [alternative form, where free space in the new version is at an opposite end to the old version].*

(“update package comprising an instruction set which indicates how to *transform the resident operating code into the updated operating code* and how to generate the *update data blocks* utilizing at least in part the plurality of data *blocks of the resident operating code*” (emphasis added – See Col. 5: 19-23).

FIG. 9 and associated text, such as, “*apply update instruction* state 1130 where the appropriate instruction from the instruction set is executed to *modify* the working bank of information in such a manner that *the old code version contained in the bank is transformed into the new code version.*” (emphasis added – See Col. 32: 52-57).

“these bank may contain information which comprises the operating system, firmware code, or application that conveys functionality to the electronic device and which is *desirably updated from the first code version to the second code version*” (emphasis added – See Col. 33: 32-36)).

But, O’Neill does not explicitly teach:

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- *a form indicating at which end of the old version free space is located.*

However, Chen discloses in FIG. 4A and associated text, such as, “Beyond the last module 413 is an *unused or free memory* segment 415 representing the remainder of unused memory” (See par. [0057]: 6-7).

But, O'Neill does not explicitly teach:

- *alternative form, where free space in the new version is at an opposite end to the old version.*

However, Chen discloses in FIG. 4B and associated text, such as, “It is contemplated the occasional free memory block 437 provides a small free memory space” (See par. [0058]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Chen into the teachings of O'Neill because such combination would have provided an effectively initialize and update firmware in an electronic device such as buffer spaces are inserted between software modules in a device's firmware to allow for expansion of a particular software module by way of a future update as suggested by Chen (See par. [0123]).

Regarding claim 2:

O'Neill and Chen disclose *the method of Claim 1, wherein said form is a B-form and wherein said alternative form is an E-form.*

(Chen further discloses in FIGS. 4A and 4B).

Regarding claim 3:

O'Neill and Chen disclose *the method of Claim 1, wherein said form is an E-form and wherein said alternative form is a B-form.*

(Chen further discloses in FIGS. 4A and 4B).

Regarding claim 4:

O'Neill and Chen disclose *the method of Claim 1, further comprising: for each block in said new version, verifying that content in said new block is successfully stored.*

(O'Neill further discloses "the bank information is validated to insure the contents reflect the desired code." (Emphasis added – See Col. 35: 63-64)).

Regarding claim 5:

O'Neill and Chen disclose *the method of Claim 1 wherein said storage device is accommodated in a cellular telephone.*

(O'Neill further discloses "in the case of a *mobile phone*, the *current code version* may reflect the *contents of the memory or storage* area to be updated. The contents of the memory or storage area may further comprise the operating system code, application code, firmware contents, or other instruction sets used by the electronic device to convey functionality." (Emphasis added – See Col. 1660-65)).

Regarding claim 6:

O'Neill and Chen disclose *the method of Claim 1 further comprising: determining whether an amount of free space in the old version is too small to allow in-place update of the old version to the new version; and if so, enlarging said free space to allow said in-place update.*

(Chen further discloses “if a new version of software module A 407 is loaded to replace the existing software module A 407, then replacing the existing version with the new version may require more or less memory space than what is currently utilized. Should additional memory space be required, a relocation or shifting of some or all modules B 409, C 411, and D 413 may occur.” (See par. [0057])).

Regarding claim 7:

O'Neill and Chen disclose *the method of Claim 5, wherein said enlarging includes: updating said old version to a temporary version having content equivalent to said old version with an alternative form to said old version and a larger free space than in said old version; and updating said temporary version to form said new version.*

(Chen further discloses “if a new version of software module A 407 is loaded to replace the existing software module A 407, then replacing the existing version with the new version may require more or less memory space than what is currently utilized. Should additional memory space be required, a relocation or

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shifting of some or all modules B 409, C 411, and D 413 may occur.” (See par. [0057])).

Regarding claim 8:

O'Neill discloses *a method for in-place updating an old version of a file stored on a storage device of a remote device to form a new version, the method comprising:*

- *determining a [form] of said old version [indicating at which end of the old version free space is located];*
- *generating an update package that is adapted for said form of the old version; and*

(FIG. 1A and associated text, such as, “the *updating operations* can correct errors or problems with existing code resident in the device, add new features or functionality, *change or modify resident applications*, or perform other desired update operations” (emphasis added - See Col. 8: 12-15).

FIG. 9 and associated text, such as, “The non-volatile storage area may be further subdivided into a plurality of blocks or banks 1010 which represent discretely addressable locations used to store information or data. The operating system, firmware code, or other information 1120 to be desirably updated is further stored in the non-volatile memory or storage area 1002 and is distributed across at least some of the plurality of banks 1010.” (emphasis added – See Col. 31: 41-51).

“banks within a particular electronic device may be variably sized and may refer to the contents of one or more logical or physical *blocks* as defined by a particular architecture for an electronic device” (emphasis added – See Col. 31: 14-26).

FIG. 10 and associated text, such as, “update process 1100 typically begins after the *appropriate available update package 110 is identified* and transferred to the electronic device” (emphasis added – See Col. 33: 37-39).

“*determine* if the received update package 110 is *appropriate* for application to the *existing code version*” (emphasis added – See Col. 33: 53-56).

- *conveying said update package to said remote device.*

(FIGS. 1A and 1B).

But, O'Neill does not explicitly teach:

- *a form indicating at which end of the old version free space is located.*

However, Chen discloses in FIG. 4A and associated text, such as, “Beyond the last module 413 is an *unused or free memory* segment 415 representing the remainder of unused memory” (See par. [0057]: 6-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Chen into the teachings of O'Neill because such combination would have provided an effectively initialize and update firmware in an electronic device such as buffer spaces are inserted between software modules in a device's firmware to allow for expansion of a

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particular software module by way of a future update as suggested by Chen (See par. [0123]).

Regarding claim 9:

This is another apparatus version of the rejected claim 1 above, wherein all the limitations of this claim have been noted in the rejection of claim 1.

Regarding claim 10:

This is another computer program version of the rejected claims 1-8 above, wherein all the limitations of this claim have been noted in the rejection of claim 1-8.

Regarding claim 11:

This is another computer program version of the rejected claim 10 above, wherein all the limitations of this claim have been noted in the rejection of claim 10.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh T. Bui whose telephone number is

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(571) 270-1976. The examiner can normally be reached on Mon. - Thur.,
9:30AM - 4:30PM.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hanh T Bui/
Examiner, Art Unit 2192
October 9th, 2010

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192